REMARKS

As can be seen from the above amendment, claims 1, 3 and 4 are cancelled, without prejudice, and claim 5 has been amended to correct a typographical error.

Claim Rejections – 35 USC § 102 & 35 USC § 103

Claims 1, 3 and 4 are rejected under 35 U.S.C. § 102(b) as being anticipated by Smith et al. (WO 00/07363), and Claims 5-8 are rejected under 35 U.S.C. § 103(a) as being obvious in view of Smith et al. and Nagaoka et al. (US 7,034,870).

Claims 1, 3 and 4 are cancelled, rendering the rejection under 35 U.S.C. § 102(b) moot.

The applicant respectfully traverses the § 103 rejections. The official action insists that an equation recited in claim 5 is equivalent to a general form of the FFT equation disclosed in *http://mathworld.wolfram.com/FastFourierTransform.html*.

However, the equation recited in claim 5 is absolutely different from the general form of the FFT equation as follows:

General FFT Equation (referring to EQ. 1 of the present invention)	FFT Equation recited in claim 5
$$C_m = \sum_{k=0}^{k=N-1} Y_k e^{-j2\pi \cdot k \cdot m / N}$$	$$C_m = \sum_{k=0}^{L-1} Y_k e^{\frac{-j2\pi \cdot k \cdot m}{2^L - 1}}$$

That is, in the general form of the FFT equation, (N -1) forms an upper limit and "$-j2\pi \cdot k \cdot m / N$" forms an exponent of "$e$". Herein, N is a positive integer. However, in the equation recited in claim 5, (L -1) forms an upper limit and "$\frac{-j2\pi \cdot k \cdot m}{2^L - 1}$" forms an exponent of "$e$." Herein, L is a bit number of a digital signal of an analog-to-digital converting means. Accordingly, resulting values calculated from the equation recited in

5

claim 5 are absolutely different from those calculated from the general form of the FFT

equation. Furthermore, in the present invention, the denominator term is composed of

multiples of 2, thereby easily implementing a digital logic.

As described above, none of the cited references discloses, teaches or suggests the

equation recited in claim 5. Accordingly, the cited references are absolutely different from

the claimed invention.

Conclusion

All claims are in compliance with 35 U.S.C. §§ 102 and 103, and can be allowed.

Early and favorable action are respectfully requested.

If the Examiner believes that any issues remain, he is encouraged to contact the

undersigned attorney to arrange for an interview.

Dated: May 30, 2007   Respectfully submitted,

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